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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,897	02/08/2001	Tatushi Igarashi	740145-193	4678

22204 7590 02/28/2003

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EXAMINER

NGUYEN, TUAN N

ART UNIT PAPER NUMBER

2828

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/778,897

Applicant(s)

IGARASHI, TATUSHI

Examiner

Tuan N Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.


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Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Drawings

1. New corrected drawings are required in this application because it is not acceptable to the draftsperson, see the attached Notice of Draftsperson drawing review. The figures are not labeled as required by 37 CFR 1.83(a). The corrected drawings are required in reply to the Office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite, vague, and confusing for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "a gas laser device having a repetition rate of 4kHz or more comprising: a laser chamber filled with gas; a pair or main discharge *electrode oppositely arranged in the laser chamber* and spaced apart by a predetermined distance; a *cross-flow fan* for circulating the laser gas *within the laser at least between the main discharge electrodes*; and a *bearing structure* for rotatably *supporting the cross-flow fans*, wherein....fan diameter is 150mm or less and peripheral speed is 25.0m/s or more." It is not clear where the pair of discharge electrode locate within the chamber. It is not clear whether the cross-flow fan is located somewhere in the chamber or someplace between the discharge electrodes, and it is indefinite as to where the bearing structure

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is supporting the cross-flow fans. The claim lacks structural and functional relation, which render the claims vague and indefinite. Claims 2-4 are rejected base on the same reason.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or non-obviousness.
5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hofmann et al. (US 6018537).

With respect to claims 1-4 Hofmann et al. ('537) shows in figures 1, -3, 5, 6 and discloses a gas laser device that cable of operating in the range of 1000 to 4000Hz (Col 3: 5) having a chamber filled with laser gas; a pair of electrode arranged oppositely with each other and spaced a part (Fig 3: 56); a cross-flow fan for circulating laser gas (Fig3: 10); a bearing structure for supporting the cross-flow fan (Fig 5: 146, 130). However, Hofmann et al. did not disclose the diameter or the speed of the fan. It would have been obvious to one of ordinary skill in the art to

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one having ordinary skill in the art at the time of the invention was made to increase the power to increase the rotations of the fans, as disclosed by the applicant's publication background [section 0010-0011]; and it is well known in the art of blowing fan such as – airplane rotor, or air conditioner, in order for the system to operate within a given range such as 4KHz one would either increase/decrease power to the fan speed and vary the diameter or increase/decrease the of the fan blade to obtain the desire value. Discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Citation of Pertinent References

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. It is cited primarily to show the product of the instant invention.

Ishihara et al. (US 6330261), Nara et al. (US006337872B1), Oliver et al. (US006026103A), Partlo et al. (US006317447B1), Myers et al. (US006128323A), and Akins et al. (US 5033055)/(US 4959840)/ (US 5029177), disclose reliable excimer laser with roller bearing.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan N Nguyen whose telephone number is (703) 605-0756. The examiner can normally be reached on M-F: 7:30 - 4:30PM.

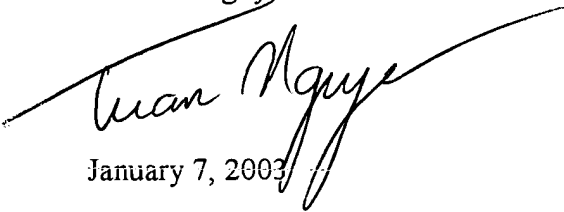
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on (703) 308-3098. The fax phone numbers for the

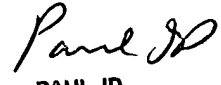
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organization where this application or proceeding is assigned are (703) 746-8592 for regular communications and (703) 746-8592 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Tuan N. Nguyen


January 7, 2003


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